# FADCA>BEACON

The FLORIDA AMATEUR DIGITAL COMMUNICATIONS ASSOCIATION Newsletter
Vol. 1, No. 6 Brandon, Fl June 1984

FADCA Nets
3958 Khz. Sundays at 8 AM by K4NTA in Stuart, Fl
147.165 Mhz. Sundays at 7 PM by KF4EF in Tampa Area, Fl
147.285 Mhz. Sundays at 9 PM by K4AHO in Orlando, Fl
145.010 Mhz. Statewide Packet Radio Frequency

FLORIDA HIGH SPEED NETWORK Ted Huf, K4NTA
1829 N.W. Pinetree Way, Stuart, Fl 33494

We are now in the planning and design stages of the high speed packet radio network that will link together all of the packet radio operators in the state. This network will allow a station say in Miami to connect with a station say in Jacksonville and conduct error free comunications the same as is now done across town. The network will also provide high speed message relaying for emergency communications. One proposal along these lines is for a two meter packet station located in every Emergency Operations Center in the state as well as at the National Hurricane Center for rapid disssemination of hurricane advisories and other emergency communications.

The Florida network will be designed to be expandable to neighboring states or as nation wide network. It will also be able to provide gateways to terrestrial or satellite networks of different protocols and topologies.

We are at this time only starting the design process. The exact equipment configuration is not known, but a typical station on the high speed network will include a two meter transceiver, 220 or 1296 Mhz. radio equipement and microcomputer. The two meter transceiver will provide the 1200 baud link to the users. The microcomputer will do the packet assembly and disassembly and control. The 220 or 1296 Mhz. radios will provide the transmissions to the other high speed stations. It has also been proposed to provide telemetry on each of the high speed stations for trouble shooting.

Some of the design goals are to make access and use of the network as easy a possible for the user and to not require major modifications to existing packet radio stations. The network should also provide error free communications but with very little delay from the time that a packet enters the network until it is transmitted out the other end. The network will be designed to be robust. If one of the high speed stations goes down, the other stations will route traffic around it. We are also looking into ways to broadcast CQ's and bulletins into a particular city on the network or to the entire network.

All of this sound like a monumental job? Well it is! FADCA has made a commitment to ghet it done and a group of us are ready to get the ball rolling. We have three committees; Tom Kneisel, K4GFG, 1600 S.W. 115th Ave. Davie, Fl 33325, heads the RF Hardware Committee. Howie Goldstein, N2WX, 1707 S.W. Cardinal St., Palm Bay, Fl 32907-4116 (305)-724-1826 is the Software Committee chairman. The Digital Hardware Committee is chaired be Guy Carbonneau, KA4VWW, 4269 S.E. Whiticar Way, Stuart, Fl 33494, (305)-283-4817. I am project coordinator.

If you would like to help in any of these areas, pleae contact one of the committee chairmen or me. There is a lot of work to be done and plenty to go around. The FADCA>BEACON has plenty of out of state readers. We really don't want to keep this a Florida only project. We need all the help we can get from around the country as well. Watch future issues of the FADCA>BEACON for committee progress reports.

## SOME THOUGHTS ON TRAFFIC HANDLING AND PACKET RADIO

by Howard Goldstein N2WX, 1707 S.W. Cardinal St, Palm Bay, Florida 32907-4116

Traffic handling is one of the oldest and most satisfying activities an amateur can be involved in. Besides the entertainment value of hamming, ham traffic handling in normal times trains us in the passing of messages accurately and efficiently, especially for times when our communications facilities and skills will help serve the publics' safety and welfare needs. Added benefit: the pleasure of phoning someone to tell them of a new grandson. Some have never tried traffic handling, probably for a number of reasons (many good!) but I am not here to discuss why you should be handling traffic now; I sincerely hope that you already have an interest or are active right now.

The great majority of amateur traffic flows through the NTS. The National Traffic System (NTS) exists to "(facilitate) The rapid movement of long-haul traffic from origin to destination and the training of amateur radio operators in the handling of formal radiogram traffic.." (1981 Radio Amateur's HANDBOOK) The American Radio Relay League sponsors the Amateur Radio Public Service Corps which is comprised of NTS and the Amateur Radio Emergency Service.

On the local level, one's interface with NTS will most likely be through a local or section level net. The essential differences are coverage area and recognition. A section net must cover an entire ARRL section (or multiple sections in some states [including FL]) and be authorized by the section's STM, wheras a local net's coverage may only be a particular town or county and is coordinated by the local EC. Nets that do cover enough area can be designated section nets when it will improve the handling of traffic for the section, and may then provide regular liason stations to their region net(s).

Higher on up are the region and area nets. Region nets receive liasons from the section nets within their region. Also a liason between the region net and its area is assigned by the region net manager. When liasons from the section nets have traffic going out of the region, that traffic is given to the area net liason.

Area nets cover areas wider then any of the other NTS nets. Three area nets handle all NTS traffic for the US and Canada. Liasons from the area's region nets check in to either pass their intra-area traffic traffic to other liasons or to Transcontinental Corps (TCC) reps. They (TCC) are responsible for clearing traffic on an area-area net basis.

Complete information about traffic handling is available from the ARRL. Ask for "Operating an Amateur Radio Station & Public Service Communications Manual" and the ARRL "Net Directory" from your ARRL SM or ARRL HQ.

Figure 1 shows how a message travels through the NTS.

### TRAFFIC + PACKET

Packet radio is great at ensuring that data is received exactly as it was sent. Moreover, the error free throughput is light years ahead of voice, CW, or RTTY, under favorable conditions.

There are three areas where packet can assist traffic handling.

The origination and delivery of messages on NTS takes place through the section and local nets. One way packet can improve message handling is by killing the time factor for the user; i.e., the person originating/receiving the message. Through the use of bulletin board like systems, messages from section nets can be posted on a specific BBS for retrieval by known hams in destination areas. This is happening right now in East Central and South Florida.

I have no good ideas for implementing packet for higher level nets (>section) in the current NTS configuration and without a reliable and efficient roundtable protocol.

The TCC station might find excellent use of packet in his schedules with other TCCers. They are the "long lines" of NTS by which all inter-area traffic flows. Many TCCers rely on HF to pass their load. For this use, the proposed PACSAT or possibly Oscar

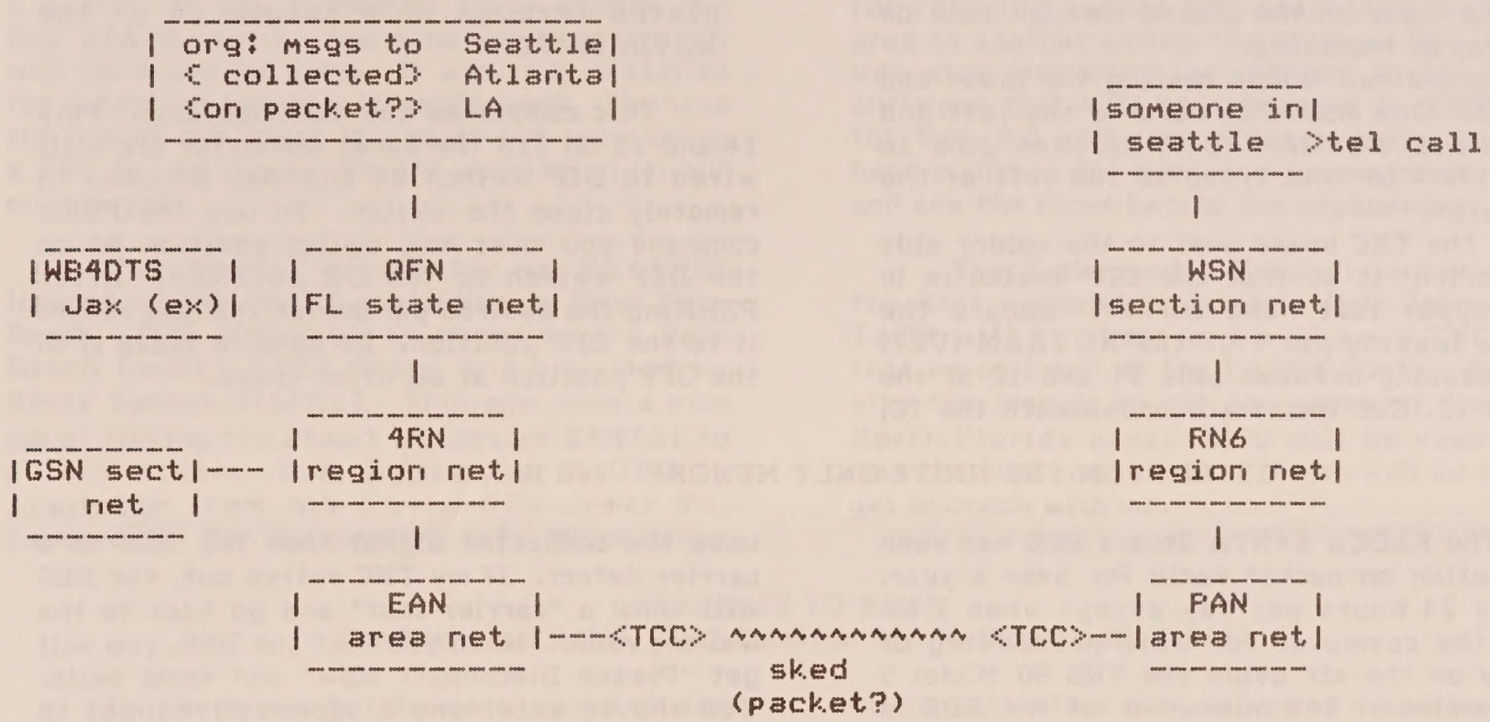
10 might be a more consistent choice as a medium but of course satellites are known to fail. The proposed SKIPCON and TERRACON might also provide enough connectivity between the TCCers to pass their traffic.

NOW Traffic may informally be left on the Stuart BBS (K4NTA-0) for relay either to the Florida section net (QFN) or delivery within the following areas: Broward K4GFG-SEFTN, S. Brevard N2WX-QFN or Martin/St. Lucie KF4I-ENMC.

The letters after a hyphen indicate the nets that these stations maintain informal liasons with. Traffic to a covered area or net should be left on the BBS with the addressee being one of the above calls.

Hope to see a lot of QTC from all!

FIGURE 1




NOVRAM FIX FOR TAPR TNC Tom Kneisel K4GFG
1600 SW 115 Ave., Davie, Fl 33325

Have you experienced problems with your TAPR TNC "forgetting" the parameters that were "PERM"ed into its NOVRAM? Sometimes it changes the values on you? Perhaps you can't sign on because ABAUD has mysteriously changed and no longer matches your terminal baud rate? These symptoms were eliminated here at K4GFG by routing the STORE* line on the NOVRAM through the DIP switch so that it may be connected to the 6522 VIA only when you want to PERM something. At all other times, including power up and down of the TNC it is connected to +5V. This prevents the TNC from erroneously storing bad data during power up or down. If you intend to use a TAPR TNC at a remote site and operate off the NOVRAM you will want to incorporate this change to protect the parameters during power outages.

Position #4 on the KIT TNC DIP switch was originally used to disconnect the NOVRAM from the RES* line whenever you wished to avoid re-reading the parameters from the shadow RAM during a reset. This function was never used here at K4GFG, and it is one which can be discarded for such a good cause! Pin #10 (ARRAY RECALL*) of the NOVRAM can be permanently connected to the RES* line, bypassing DIP switch S4. The connection between pin 5 (PA3) of the 6522 VIA and pin 9 (STORE*) of the NOVRAM can then be routed through the DIP switch. It is important to leave the pullup resistor connected to the NOVRAM side of the switch so that the

STORE* line is pulled up to +5V when the switch is open.

On the KIT BOARDS this requires 3 plating cuts and 3 jumpers to be added as follows:

1. Viewing the TNC board from the component side, orient the board so that the LED's are in the upper right hand corner. Find the trace leaving pin 4 of the DIP switch and going left to pin 34 of the 6522 (U6). Cut it to the right of the plated through hole on the top of the board.
2. There are two traces leaving the lower end of R6. One moves upward to the left and under the NOVRAM (U27) between pins 16 and 17. Cut this trace to the left of the resistor.
3. Turn the TNC board over to the solder side and orient it so that the DIP switch is in the upper left hand corner. Locate the trace leaving pin 9 of the NOVRAM (U27) and passing between pins 11 and 12 of the same IC. Cut this trace underneath the IC, to the left of pin 9.
4. Connect a wire between pin 4 of the DIP switch and pin 5 of the 6522 (U6). Wire wrap wire is excellent for this purpose and makes for a neat appearance when dressed flat against the board.
5. Connect a wire between pin 5 of the DIP switch and pin 9 of the NOVRAM (U27).
6. Locate the trace leaving pin 34 of the 6522 (U6) and running downward to a plated through hole just to the right of pin 21 on the same IC. Connect a wire from this plated through hole to pin 10 of the NOVRAM (U27).

This completes the modifications. Pins 14 and 15 on J16 the panel connector are still wired to DIP switch S4 and may be used to remotely close the switch. To use the PERM command you must now switch position #4 on the DIP switch to the ON position. After PERMing the desired parameter changes return it to the OFF position. Be sure to leave it in the OFF position at all other times.

## BYTES FROM THE WRITE ONLY MEMORY Ted Huf, K4NTA

The FADCA K4NTA Stuart BBS has been in operation on packet radio for over a year. It is up 24 hours per day except when I am using the computer for word processing or actually on the air using the TRS 80 Model 3 as a terminal. The operation of the BBS is straight foward and no different than any you might find on the land line. In fact it is a standard BBS that I converted for packet operation. I try to keep a message on my ID beacon stating if the BBS is on line of not. I will not go too much into the operaton of it here because it is pretty simple and a "?" at any command prompt will give the options. When you checkin you are asked for your call letters. This is a ham radio BBS so no names please. If you check in and are asked for your password, that means that I have your call in as a user. By the way, the default password is "PASSWORD". You can change it or the screen width formatting be typing "X" from the main command prompt. The changes will take effect the next time you check in. I try to keep the user list updated with all new people that I hear on the air. If I missed you, just leave me a message and you will be added.

The BBS is pretty much bullet proof. It uses the connected signal from the TNC as a carrier detect. If my TNC retrys out, the BBS will show a "carrier lost" and go back to the waiting mode. When you Exit the BBS, you will get "Please Disconnect Now" and some bells. You should enter one disconnect request to your TNC and wait or the ACK. If you enter two disconnects your TNC will disconnect but mine may not and will keep sending the Disconnect Now message until it retrys out at 15 retrys. Another point here, because my retrys are at 15, you may retry out and my TNC might think we are still connected. If this happens, enter another connect request and you might be back where you left off.

The BBS is for all to use. I hope soon to have more disk drives so that we can have a larger up/down load section. I am also looking foward to the day when I have another TNC so I can operate and keep the BBS on at the same time.

Speaking of the up/down load section; does anyone out there subscribe to Compuserve's Hamnet? Sure would be nice it have someone get the bulletins from Hamnet and up load them to the BBS for us all to use!

# FADCA>BEACON

FADCA has been around now for just six months. We have grown to a membership of close to 75. Gwyn Reedy, W1BEL sent some of us a plan to formally organize FADCA and to incorporate as a non profit corporation. With the help of Dick Klein, W4PCM, an attorney, we are finding out the requirements of the State of Florida and hope to have more information on this next month.

New Digipeaters The Lake Wales digipeater has been in operation now for over a month. It was loaned by Larry KE4PM and Bob N4APC, but by the time you read this it will no doubt be gone. It was only installed for a test to see how it would work. We have the use of the tower it was on but are lacking a TNC to use there. We are working on it, but no luck yet.

The Newest digipeater is WA4ARE1 located on the top of a building in West Palm Beach. This digipeater is owned by the Palm Beach County ARES Group and operated by Henry Feldon, WA4HXZ. This one does a nice job of linking the Stuart digipeater K4NTA1 to points south. Tom Kneisel's, K4GFG is available from his Davie QTH (near Ft. Lauderdale) for digipeating into Miami when ever he is home.

The FADCA picnic was held June 10th at Highland Hammock State Park. We had a little over 20 there from the Miami, Ft. Lauderdale, Palm Beach, Tampa, Orlando, Melbourne, Stuart, Avon Park, Okeechbee and Stuart areas. A panel discussion was held with much about the High Speed network, why we needed it and how it would work. Howie N2WX, Tom K4GFG and I were on the panel. There was a great deal of discussion about using AMTOR for relaying packet transmissions from one area to another within the State on HF. There was also discussion on changes to the TAPR software that will be suggested to TAPR for the Ver. 4.0 software. It was really good to have a chance for everyone to meet each other and see the faces behind the keyboards.

The Jacksonville Hamfest is coming up the first weekend in August. Lyle Johnson of TAPR will be there and will have TNC kits that we will sell at the FADCA booth. We will also the looking to get new members from the North Florida area. Help will be needed to man the booth, so please, if you will be there, get in touch with me.

## RESPONSE TO N2WX

Jim Nichols KF4WJ, 2815 Cameron St., Melbourne FL 32901

In response to Howie's request for input on which method to use for the description of how a particular software item works, I would like to cast my vote for PDL.

My reasoning for this is based on the belief that the best way to get a reader to try out an idea, is to make it simple for him/her to understand that idea. When software is presented as a listing, it takes on the peculiarities of that language and the compiler it was written for. Assuming everyone has the same machine, operating system, and compiler a source listing is an expedient method of transferring programs, however, for different systems (especially low end micros using only ROM BASIC) the languages and capabilities could be considerably different. At that point the readers must understand all of the subtleties (i.e. delimiter defaults, etc.) of the language they are transfering from to ascertain how the program works so that it can be converted for their system implementation. A more subtle advantage of PDL is since it is more english like, it usually requires less printed lines in the newsletter than source code (a possible printing cost consideration). By using PDL, the readers should be able to more readily understand the logic of the software being discussed and therefore increase discussion on that software with the end result of broader knowledge base of the algorithms and better algorithms. Users desiring the source listing could either request it from the author (covering the author's expense) or possibly get it via the digipeater.

## THE HOMEBREWED FRAME

by Howard Goldstein N2WX
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May and early June was wrapup time here at N2WX. The school semester is over with, and so are the interesting final examinations! Unfortunately all that did not leave enough time to do a writeup on level 3a for the S100 TNC. If you can't wait, see May's Homebrewed Frame column for details on how to get the C source.

BWOP The word this month is LINKING and it's been the Big Word On Packet lately. More specifically, high speed linking. Past few weeks here have proven that Florida's hams will not take the back seat to anyone else when it comes to pioneering the new frontiers in digital communications. We are indeed fortunate to have people with such a high level of quality knowledge and experience in many diverse areas, and that these people are willing to set aside other chores and contribute their resources to advance ham radio for the rest of us.

A roundtable on high speed linking is conducted every Wednesday at 2100 (time and day are in EST) on 3958 Khz, moderated by Tom K4GFG in Davie. All are welcome to drop by.

World Chip Modem I mentioned the Advanced Micro Devices Am7910 World Chip modem on a chip briefly last month as possibly usable on packet. One was installed on the Xerox 820 state machine board with SYSTEK level 2 software (discussed in May 1984 BEACON). The interface is easy and described below.

If you build the state machine add on you probably wondered why I specified an interconnecting ribbon cable with 8 leads. This was in order to have spare lines for the modem control signals to go to a 7910 modem chip alongside the state machine hardware! Hopefully you left enough room on the perfboard to fit the 28 pin dip. Lines you will need to bring out to the state machine from the 820's SIO chip include: RTS*, CTS*, and DCD*. RTS*, being an output signal makes it easy to jump the signal directly from the Z80 SIO chip without the need to desolder. But CTS* and DCD* are another story, they are driven by the RS232 receiver. The specific receiver chip, i.e. the one that applies to your state machined channel, must be removed from the board so that the modem chip will not fight the receiver chip for CTS* and DCD* level.

A 5.1V zener, after the minus 12 is dropped by a 260 ohm resistor, provides the needed nominal minus 5 for the Am7910. plus 5 is obtained from any other chip on the state machine board. Transmitter keying is accomplished with the IRFD1Z3 n channel power mosfet keyed at it's gate by the output of an inverter stage, so that logic line feeding the gate is floated high when the transmitter should be keyed (equivalent to RTS*).

PERFORMANCE COMMENTS The modem chip was AC coupled to the speaker and microphone lines of an aged but still popular synthesized mobile 2 meter rig (kit). Needless to say this particular radio is is not a good performer on packet and I did not obtain very good results on transmit. However I suspect the problem lies in the radio and may have to do with alignment, and is unrelated to the modem. More later.

Caveat: the Am7910 indicates carrier detect in the presence of white noise in addition to the normal indication when a 202 type signal is present. Ted K4NTA has an excellent solution to this problem: NAND a 7910's inverted DCD* ( DCD*) with an active high COS (carrier operated squelch) output from the rig. The result will be a new DCD* that is true when a signal is present and the modem outputs 'carrier detect.'

The Chip That Ate Packet Radio NOTE: Send almost any Z80 based system packeting.. Here's how to get level 2 going on your system easily. If you're not an 820 owner, building the address decoders is relatively easy and is doable with a NAND and a demultiplexor.

Have you just gotten a Xerox 820 Big Board? Or maybe you've had one for a while now. Tired of all those extra parallel lines you just don't know what to do with? Giving two channels worth of hots to the 820 without a big mess can be done safely and with some amount of elegance! Mr. and Mrs. Exxon's baby Zilog has formed a Noah's ark on a 40 pin DIP with two of everything: two USART

channels with SDLC frame level control, two DPLLs, two baud rate generators, two xtal oscillators, etc. ( see zilog data book and no I don't work for Zilog)

The N2WX Frame Assembler Disassembler board (FAD) uses the Zilog Z8530, a pair of flip flops, 2 NANDS and 3 inverts to bridge the gap between Level 2 on the big board and external level 1 modem circuitry. These chips sit on about six square inches of a perfboard that is connected by a 40 pin DIP jumper cable to the U101 position (GP PIO) on the big board.

Construction Bill Hite K4RHD presented many recommendations in "Do it Yourself Wire Wrap TNC" (FADCA>BEACON 1984 May pp. 3 to 5) on wire wrap construction techniques. Bill has a lot of very good ideas and should you adopt some or all of his techniques you might avoid having to spend more time debugging the project than playing with it.

As usual, if you start with the most difficult thing the rest will be downhill. The toughest thing is going to be removing the Z80 PIO at U101 from the big board. You have at least two ways to remove it and any other DIPs from a pc board:

o - Needle nose cutters. Clip each pin close to the carrier to get the chip out of the way. Then remove the liberated chip. Unsolder the pins individually, pull them out with pliers, and then using a sucker or wick, clean the excess solder out of the holes. Of course the chip is real funky after you clip its leads off. A sample of advertisers in a recent BYTE show a median price of $3.95 for a PIO.

o - Large solder sucker, temp controlled iron. I recommend a solder sucker with a chamber that is six inches or longer. Smaller chambers don't seem to get all the solder the first time, and you have to use too much heat with the wick. But the board is high quality and with the right tools and judicious application of heat, it is really quite easy to remove the PIO intact and still functional.

DESOLDERING HINT. Try flowing a small amount of fresh solder to the joint that you are unsoldering. The fresh solder helps the connection heat up quickly to the molten state. I needed about 43 tries to get the 40 pin PIO out with this method.

Now that you have removed the PIO and have nice clean plated thru holes, solder a high reliability low profile socket in the spot. Obtain: no more than ten inches of 40 lead ribbon cable and two 40 pin "bang on" DIP plugs. These plugs are made to be compressed onto the ribbon cable. I now use a Vise Grip to press them on but they can also be banged on if you are careful@ Check the cable for opens and shorts.

Layout on the perfboard is not critical, but to save wire keep the two 40 pin sockets adjacent to each other. Assemble the circuit presented in the schematic (not Heathkit directions, huh). Bypass pin 9 of the 8530 with a .1uf cap to ground, and also at another chip. Put a 20uf cap between pin 26 and 11 on J1 to help filter the +5.

OPTION. If you want RS232 output for channel B of the 8530, you may add the optional circuits (presented in the schematic). To get plus/minus 12 for the RS232 driver, remove U102 from the Big board (74LS243 $1.09 median price). Jump pin 1 of the pwr plug on the BB (minus 12) to the hole at U102 pin 6. Pin 2 of the pwr plug goes to U102 pin 3. Please don't plug a PIO back into U101 if these power connections are there! plus/minus 12 are carried to the FAD board along with the signals on two of the free leads of the 40 line cable.

Circuit The PIO has limited value for packet use so I took advantage of the address decoding on board for it rather than building extra hardware. Note that the Z8530 can talk directly to the Z80 bus for all but three lines, simplifying the interface (Data, address, and most interrupt information tie directly to Z8530 pins).

The Z8530 uses different controls for interrupt handling. For instance, INTACK* low indicates to the 8530 the start of an interrupt acknowledge cycle and some interval later expects to see RD* go true, telling the SCC to stuff its vector onto the data bus if it had an interrupt pending and IEI was true. But on the Z80, all M1 cycles begin with M1* true, and the acknowledge

cycles are indicated by the coincidence of M1* true and IORQ* true. The entire Z80 daisy chain is supposed to settle (no changes in interrupt enable status) during M1*; therefore, this line is tied directly to INTACK*. M1* is ORed (DeMorgan's way) with IORQ* to gate the vector from the SCC by forcing RD* true and WR* false for the SCC.

RD* and WR* are forced false during times when IORQ* is false, and also during INTACK*. Both RD* and WR* are clocked by an inverted PCLK so as to present strobes of sufficient duration for the Z8530.

(NOTE: The use of a * after a signal name (e.g. DCD*, CTS*) indicates that that particular signal is active low. This IEEE recommended convention is used in place of the more familiar bar in order to simplify the publication of the article.)

the RESIDUE LATCH
(observations & commentary)

HURRICANE SEASON Is it now the 37th time you've heard that Florida is due for at least two hurricanes this year? It really is amazing how the media reports this year as one in which we'll make up for 'lost' hurricanes. Granted the el nino is fading or gone by now but their implication is that there is some kind of big 'tropical storm register' somewhere that has been accumulating all the storms we were supposed to have, and this year it is going to dump it all! Over the long haul, and for climate we may be talking decades when we say long term, and with all other things remaining equal, the incidence of tropical storm development will probably be distributed normally about the historically observed mean incidence. But variance of incidence each year is so great, I feel that any predictions that this year it's going to be a calm or disturbed hurricane season, before the patterns for the season even form, is not worth worth much more than a frame received with a checksum error.

While it's pretty easy to argue these with these pseudo statistical wonders, one fact remains: The storm surge, winds, and tornados formed by hurricanes are not just figments of an overactive imagination. They are deadly appurtenances to these tropical storms. And it would take many days to evacuate areas like the keys, and well over 12 hours to clear out the beach areas around the major metropolitan areas on both east and west coasts.

Ultimately we hope to have the National Hurricane Center in Miami available on the packet network. Until they come on line maybe packet can still provide some utility at least for the dissemination of the information generally available from the National Weather Service transcribed broadcasts.

To assist packeteers in tracking and planning for hurricanes, this station will transcribe the tropical weather outlook and tropical weather advisories that are broadcasted by the NWS office in Daytona Beach, and enter them into the K4NTA bulletin board system. The Subject field of each update will contain the date and time of the advisory formatted like (8406211500 Tropical Depression Advisory), where the number indicates the date and time of the notice and the text, what it contains. The preceeding example would be for a tropical depression advisory issued on 21 June 1984 at 3 PM local time. I invite all other stations to assist in keeping the advisories up to date.

Stations wishing to view these advisories may wish to use the BBS' "RN" command to access all messages on the BBS that one has not read before. Contact K4NTA for more info. on the Stuart BBS.

SOFTCON The FADCA software committee is looking for people interested in: assisting with the development of the high speed linking protocol and software, implementing AX.25 on various hardware, and developing new packet applications (including GAMES). Please contact me if you are interested in sitting on the committee.

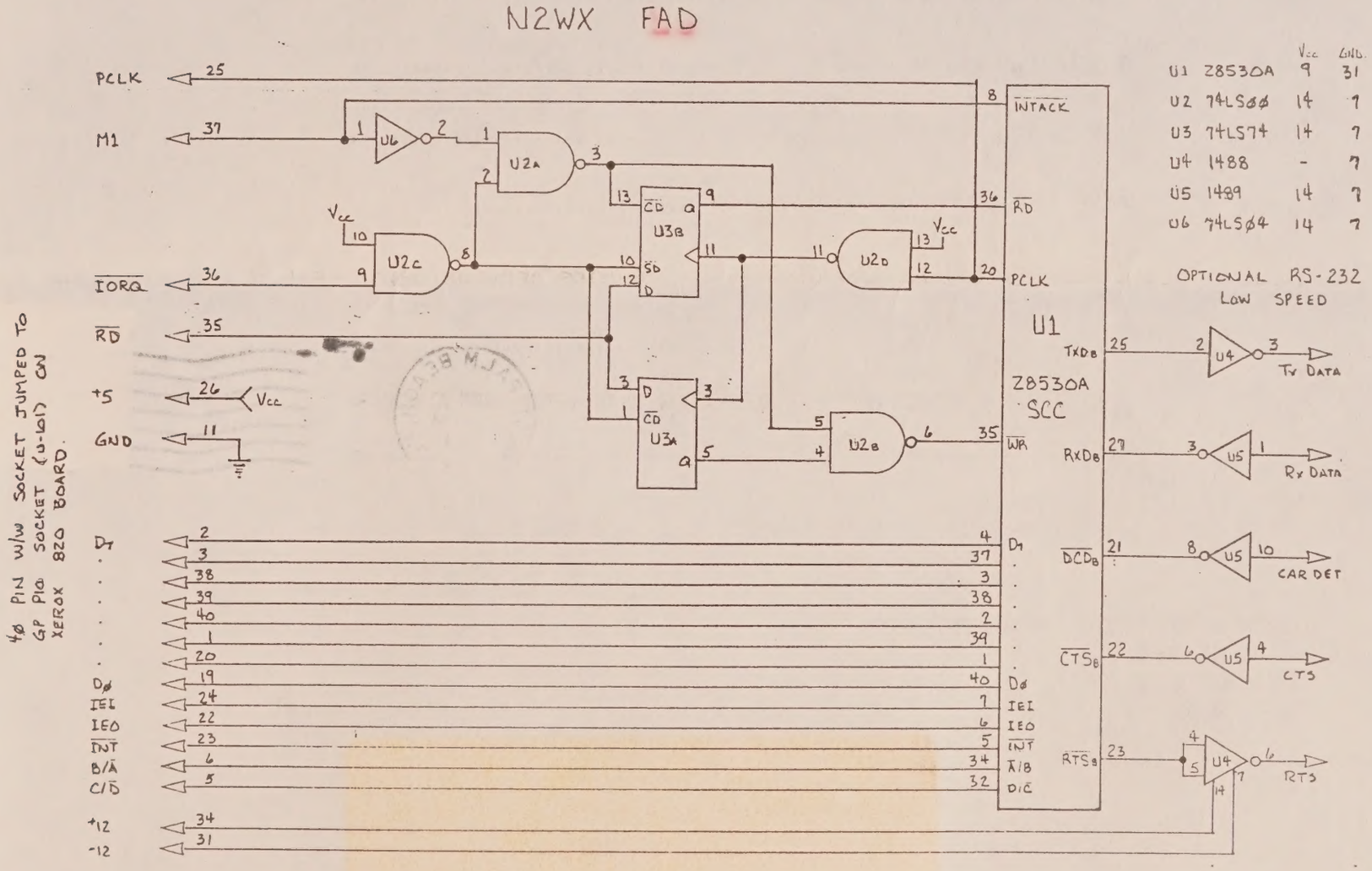
PICNIC The Highlands Hammock picnic is now just a good memory. Kudos to N4APC, KE4PM and K4NTA for pulling it off. Eyeball QSOs stimulates the kind of brainstorming we'll need to become a pace setter in packet ideas. I hope to see the rest of you at the

Jacksonville and Melbourne hamfests where FADCA will be represented.

TRAFFIC Please also see the article on traffic elsewhere in the issue. Attention stations in MIAMI, WPB, TPA BAY area, HIGHLANDS county! if you would like to handle radiogram traffic for your area on packet please make yourself known to KF4I or myself!

## ADDITIONAL LATE BREAKING NEWS

Bob Sykes, KE4VR has produced a video tape showing the scope shots from the various points on the TAPR TNC Kit. It also shows basic operation of the TNC. If you need help getting your TNC up and running, this tape may be some help. Let me know if you need it, you pay the postage both ways. *** Bill, NK4K has a new BBS up and running on packet radio. Bill is located in the Miami area. I have not checked into his BBS but saw someone using it and it looks good.




FLASH *** IF YOU HAVE A TAPR TNC KIT, THERE SHOULD BE A TRACE RUNNING FROM U9 PIN 26 TO U10 PIN 26. IT IS NOT ON THE SCEMATIC OR ON THE BOARD. K4RHD FOUND OUT TODAY (6/17/84), ON THE TAPR 15 METER NET, THAT TAPR DID NOT KNOW ABOUT THIS AND IS SENDING A NOTICE OUT. SEEMS THAT SOME KITS WORK OK WITHOUT IT AND SOME DON'T. IF YOU ARE HAVING TROUBLE CHECK IT.

FLORIDA AMATEUR DIGITAL COMMUNICATIONS ASSOCIATION MEMBERSHIP REQUEST

NAME.....CALLSIGN.....

LICENSE CLASS..... TAPR MEMBER? Y/N  OTHER MEMBER?.....

ADDRESS.....

CITY.....STATE.....ZIP.....

PHONE (H) (.....)..... (W) (.....).....

FREQUENCY HERE I CAN BE FOUND:.....

I OPERATE: RTTY? Y/N  AMTOR? Y/N  OTHER.....

TYPE COMPUTER EQUIPMENT:.....

PACKET GEAR OWNED OR ON ORDERED? Y/N  TYPE:.....

SUGGESTIONS, PROPOSALS, COMMENTS, NAMES OF OTHER INTERESTED PERSONS.....

.....

MAIL THIS FORM AND YOUR MEMBERSHIP DUES OF $10 TO THE RETURN ADDRESS BELOW

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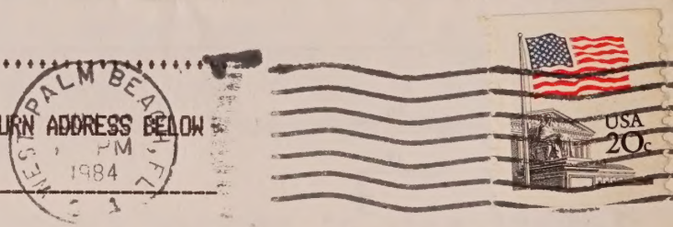


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